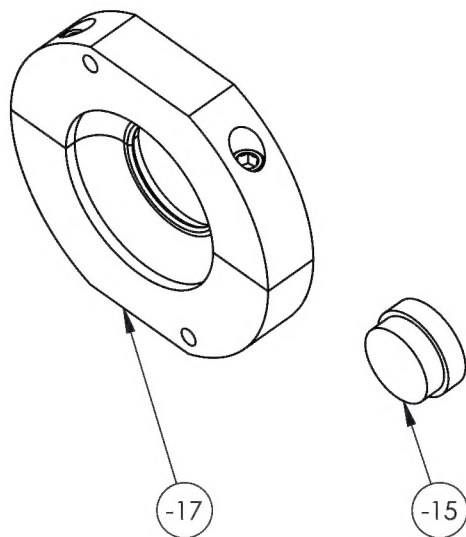


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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		-13 CH'D OUTSIDE DIMENSIONS & ROUNDED OUTSIDE DIMENSIONS & MATCHED 105-1 HOLES MATCHED 269T9336-1. -17 CH'D OUTSIDE DIMENSIONS & ROUNDED OUTSIDE DIMENSIONS & MATCHED 105-1 HOLES MATCHED 269T9336-1 & CH'D P/N -001 TO -17.	3/14/2006		
2		-13 & -17 CH'D THICKNESS FROM 1.3. ADDED FULL R.055 WAS R .030, CH'D CUTOUT TO C-BORE.	4/4/2006		
3		-15 ADDED HOLE FOR BALL BEARING & O-RING.	10/27/2006		
4		CH'D REVISION NUMBER TO ALPHABETIC LETTERS.	5/21/2007		
5		CH'D TITLEBLOCK & REVISION BLOCK, CH'D REVISION TO NUMERICAL, CH'D ENGRAVE NOTE.	6/9/2009	RJC	RW
5A		ADDED INSTRUCTIONS	2/16/2010	RJC	RW
5B		-13 CH'D TOLERANCCE WAS Ø5.681 IS Ø5.68. CH'D DWG TOLERANCE WAS .XXX ±.005, .XX ±.01 IS .XXX ±.010, .XX ±.03. -17 ADDED BREAK-OUT SECTION TO CLARIFY COUNTERBORE FEATURURE. COUNTER BORE WAS Ø.5625 IS Ø.563. CH'D DIM TOLERANCE WAS Ø5.681 IS Ø5.68. CH'D DWG TOLERANCE WAS .XXX ±.005, .XX ±.01 IS .XXX ±.010, .XX ±.03.	3/14/2014	RJC	GE
6	16-0044	-13 CH'D DIM WAS 2.625 IS 2.63, WAS 2X 1.875 IS 1.875. WAS 1.084 IS 2X 1.084, WAS R.545 IS R.55. WAS FULL R.055 IS FULL R, WAS Ø2.050 IS Ø2.050 ∇ 1.50, DELETED 1.086 TYP, ADDED NOTES 1 & 2. ADDED DIM 3.750. -13B CH'D P/N WAS -17 IS -13B CH'D DIM WAS (2.625) IS 2.63, WAS C-BORE Ø.563 (x2) IS 2X Ø.397 TRHU ALL \perp Ø.56 ∇ 1.15, WAS R.545 ID R.55, WAS 2X 1.875 IS 1.875, ADDED DIM 3.750. DELETED DIM 1.086. ADDED NOTES 1, 2 & 3. -15A CH'D DIM'S WAS .090 IS .09 WAS .094 IS .09, WAS Ø1.561 IS Ø1.56, WAS .620 IS Ø.531 ∇ .46. -15 & -17 ADDED ASSEMBLY DRAWING. -16 & -18 ADDED ASSEMBLY DRAWING.	2/22/2016	RJC	JAG



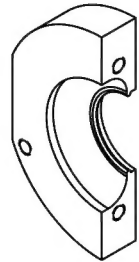
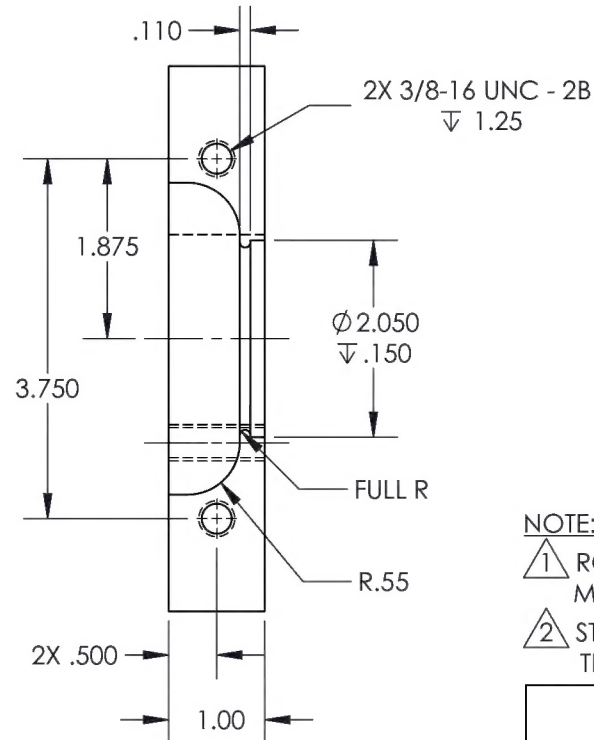
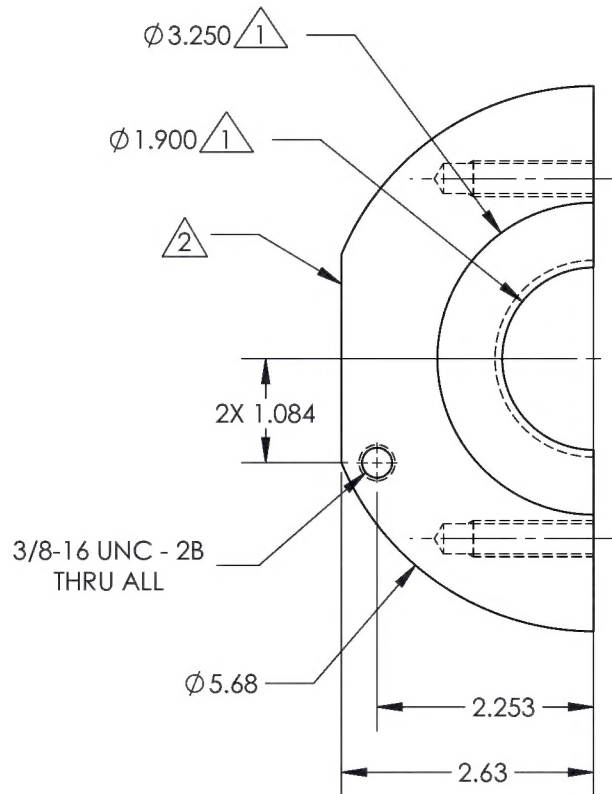
NOTE:
FOR USE WITH 269T9336-105 PULLEY BEARING
SCREW SET ONLY.

ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
1			-13		L/HALF UPPER PULLER	H-13		2
	1		-15A		SHAFT PLUG	1018/1020 CR		5
	X		-15	1	SHAFT PLUG ASSY			6
1			-13B		R/HALF UPPER PULLEY	H-13		3
X			-17	1	UPPER PULLER ASSY.			4
2		B/O	-19		SOCKET HEAD CAP SCREW	STEEL	3/8-16 X 2-1/2 (MCMaster-CARR #91251A634)	4
	1	B/O	-21		BALL BEARING	S2 TOOL STEEL	Ø1/2 (MCMaster-CARR #1995T15)	6
	1	B/O	-23		O-RING	BUNA-N	2mm C/S X Ø12mm I.D. (MCMaster-CARR #9262K176)	6
ASSY -17	ASSY -15							

DART AEROSPACE	
TITLE UPPER PULLEY PULLER KIT	
DWG NO. 269T9336-103	REV 6
MAT'L HEAT TREAT FINISH	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± .5° .X ± .1 SURFACES = 125°
SPEC	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
DRAWN BY: PERRITT	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
CHECKED: DUERFELDT	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
OPPS APPR: ANDERSON	USED ON MODEL
QA APPR: LINDSAY	SCHWEIZER 269
APPROVED: GILBERT	
SCALE 1:3	DATE 10/24/2006
SHEET 1 OF 7	

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		-13 CH'D OUTSIDE DIMENSIONS & ROUNDED OUTSIDE DIMENSIONS & MATCHED 105-1 HOLES MATCHED 269T9336-1.	3/14/2006		
2		-13 CH'D THICKNESS FROM 1.3, ADDED FULL R.055 WAS R.030, CH'D CUTOUT TO C-BORE.	4/4/2006		
3			2/22/2016		
4			2/22/2016		
5B		-13 CH'D TOLERANCE WAS Ø5.681 IS Ø5.68. CH'D DWG TOLERANCE WAS .XXX ±.005, .XX ±.01 IS .XXX ±.010, .XX ±.03.	3/14/2014	RJC	GE
6	16-0044	-13 CH'D DIM WAS 2.625 IS 2.63, WAS 2X 1.875 IS 1.875, WAS 1.084 IS 2X 1.084, WAS R.545 IS R.55, WAS FULL R.055 IS FULL R, WAS Ø2.050 IS Ø2.050 √.150, DELETED 1.086 TYP. ADDED NOTES 1 & 2. ADDED DIM 3.750.	2/22/2016	RJC	JAG



NOTE:

- 1 ROUGH MACHINE, HEAT TREAT, FACE AND MACHINE AFTER HEAT TREAT.
- 2 STAMP BOTH -13 & -17 HALVES BEFORE HEAT TREATING TO KEEP IN PAIRS.

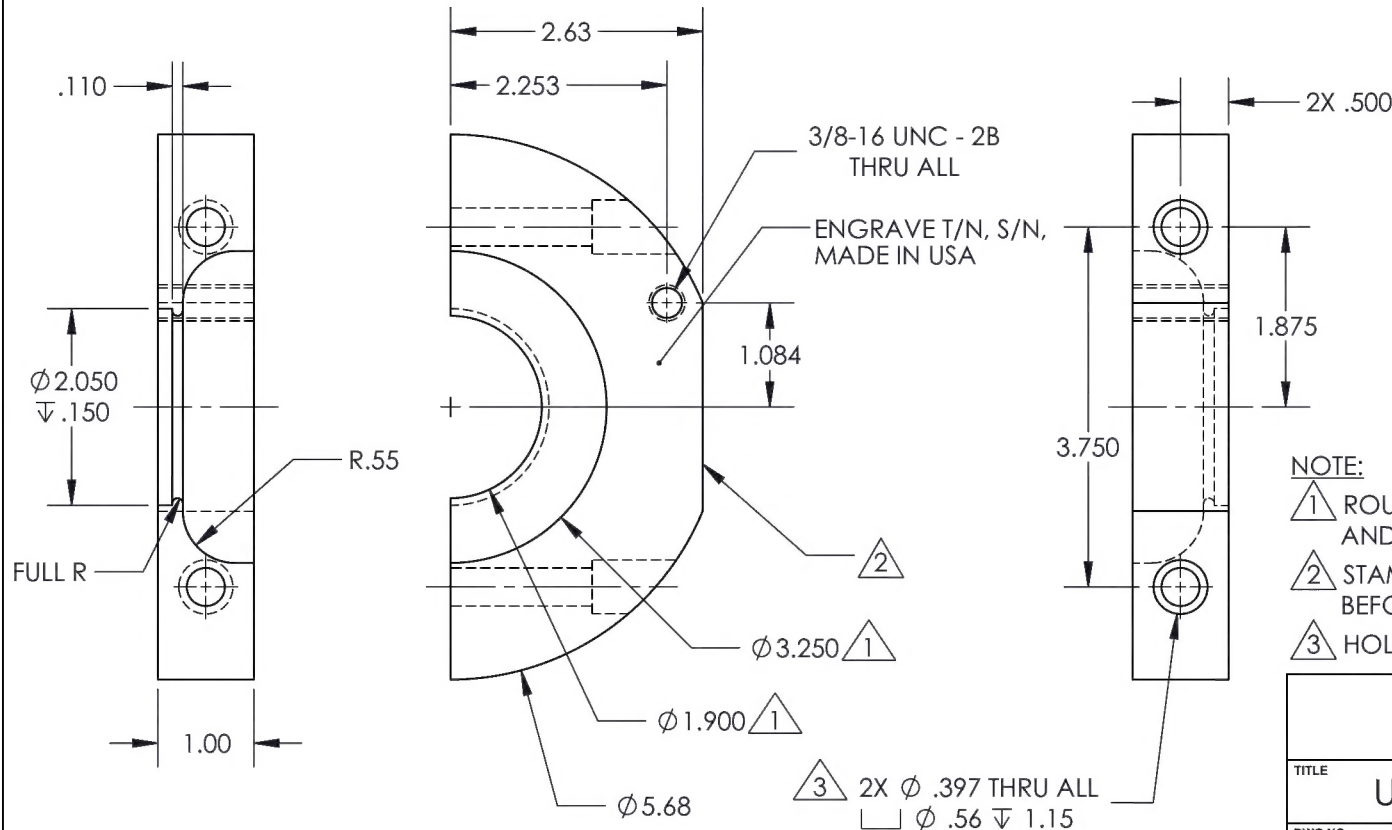
(-13)

L/HALF UPPER PULLER

DART AEROSPACE	
TITLE UPPER PULLEY PULLER KIT	
DWG NO. 269T9336-103-13	REV 6
MAT'L H-13 HEAT TREAT RC 35-40 FINISH BLACK OXIDE SPEC DRAWN BY: PERRITT CHECKED: DUERFELDT OPPS APPR: ANDERSON QA APPR: LINDSAY APPROVED: GILBERT	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± 5° .X ± .1 SURFACES = 125° 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING 3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009 USED ON MODEL SCHWEIZER 269
SCALE 1:2	DATE 2/17/2006
SHEET 2 OF 7	

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		-17 CH'D OUTSIDE DIMENSIONS & ROUNDED OUTSIDE DIMENSIONS & MATCHED 105-1 HOLES MATCHED 269T9336-1 & CH'D P/N -001 TO -17.	3/14/2006		
2		-17 CH'D THICKNESS FROM 1.3, ADDED FULL R.055 WAS R .030, CH'D CUTOUT TO C-BORE.	4/4/82006		
5B		-17 ADDED BREAK-OUT SECTION TO CLARIFY COUNTERBORE FEATURURE. COUNTER BORE WAS Ø.5625 IS Ø.563, CH'D DIM TOLERANCE WAS Ø5.681 IS Ø5.68. CH'D DWG TOLERANCE WAS .XXX ±.005, .XX ±.01 IS .XXX ±.010, .XX ±.03.	3/14/2014	RJC	
6	16-0044	-13B CH'D P/N WAS -17 IS -13B CH'D DIM WAS (2.625) IS 2.63, WAS C-BORE Ø.563 (x2) IS 2X Ø.397 THRU ALL \square Ø.56 ∇ 1.15. WAS R.545 ID R.55, WAS 2X 1.875 IS 1.875, ADDED DIM 3.750. DELETED DIM 1.086. ADDED NOTES 1, 2 & 3.	2/22/2016	RJC	JAG



NOTE:

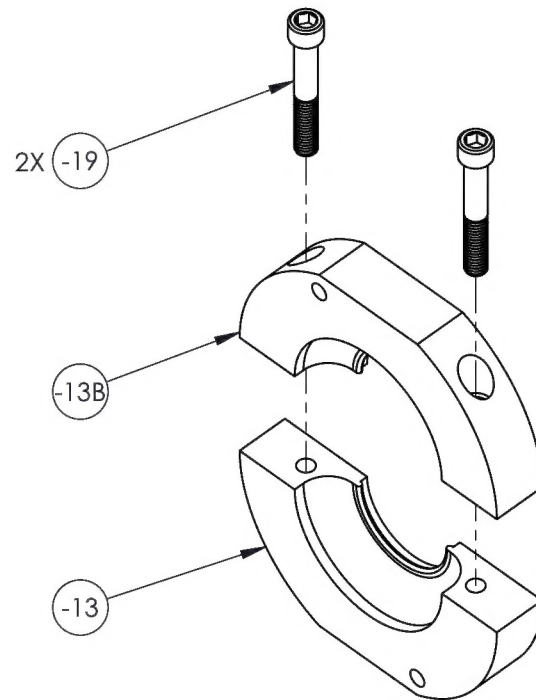
- ① ROUGH MACHINE, HEAT TREAT, FACE AND MACHINE AFTER HEAT TREAT.
- ② STAMP BOTH -13 AND -17 HALVES BEFORE HEAT TREATING TO KEEP IN PAIRS.
- ③ HOLE DEPTH CALL FROM THIS SURFACE.

(-13B)
R/HALF UPPER PULLEY

DART AEROSPACE	
TITLE UPPER PULLEY PULLER KIT	
DWG NO. 269T9336-103-13B	REV 6
MAT'L H-13	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
HEAT TREAT RC 35-40	.XXX ± .005 FRACTIONS ± 1/8
FINISH BLACK OXIDE	.XX ± .01 ANGLES ± 5°
SPEC	.X ± .1 SURFACES = 125✓
DRAWN BY: PERRITT	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
CHECKED: DUERFELDT	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR: ANDERSON	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR: LINDSAY	USED ON MODEL
APPROVED: GILBERT	SCHWEIZER 269
SCALE 1:2	DATE 2/17/2006
SHEET 3 OF 7	

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
6	16-0044	-17 ADDED ASSEMBLY DRAWING.	2/22/2016	RJC	JAG



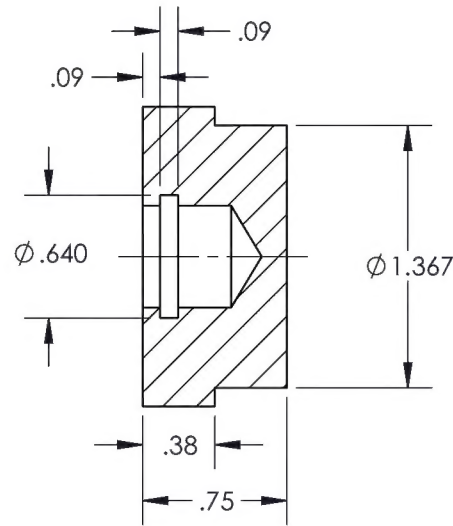
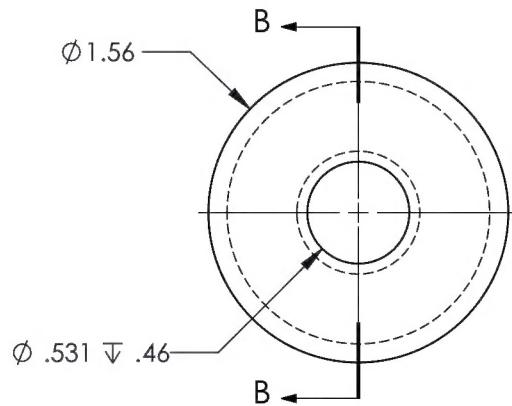
-17

UPPER PULLER ASSY.

DART AEROSPACE	
TITLE UPPER PULLEY PULLER KIT	
DWG NO. 269T9336-103-17	REV 6
MAT'L REAT TREAT FINISH SPEC	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± .5° .X ± .1 SURFACES = 125°
DRAWN BY: PERRITT	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
CHECKED: DUERFELDT	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR: ANDERSON	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR: LINDSAY	USED ON MODEL
APPROVED: GILBERT	SCHWEIZER 269
SCALE 1:3	DATE 10/24/2006
SHEET 4 OF 7	

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
3		-15 ADDED HOLE FOR BALL BEARING & O-RING.	10/27/2006		
6	16-0044	-15A CH'D DIM'S WAS .090 IS .09 WAS .094 IS .09, WAS Ø1.561 IS Ø1.56, WAS .620 IS Ø.531 ∇ .46.	2/22/2016	RJC	JAG



SECTION B-B



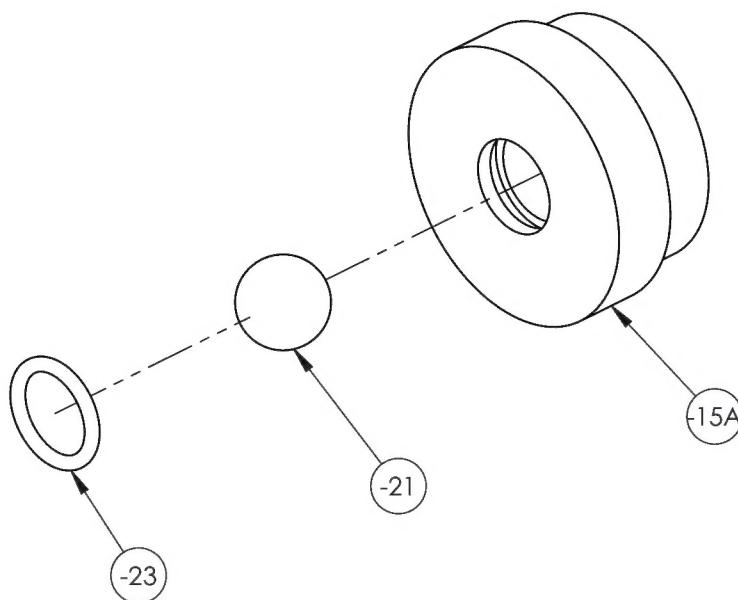
-15A

SHAFT PLUG

DART AEROSPACE	
TITLE UPPER PULLEY PULLER KIT	
DWG NO. 269T9336-103-15A	REV 6
MAT'L 1018/1020 CR	UNLESS OTHERWISE SPECIFIED
HEAT TREAT	DIMENSIONS ARE IN INCHES
FINISH BLACK OXIDE	.XXX ± .005 FRACTIONS ± 1/8
SPEC	.XX ± .01 ANGLES ± 5°
	.X ± .1 SURFACES = 125
DRAWN BY: PERRITT	1. BREAK ALL SHARP EDGES
CHECKED: DUERFELDT	.015 x 45° OR .015R
OPPS APPR: ANDERSON	2. DIMENSIONAL LIMITS APPLY
QA APPR: LINDSAY	AFTER PLATING
APPROVED: GILBERT	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
SCALE 1:1	DATE 10/24/2006
	SHEET 5 OF 7

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
6	16-0044	-15 ADDED ASSEMBLY DRAWING.	2/22/2016	RJC	JAG



(-15)

SHAFT PLUG ASSY.

DART AEROSPACE	
TITLE UPPER PULLEY PULLER KIT	
DWG NO. 269T9336-103-15	REV 6
MAT'L REAT TREAT FINISH SPEC	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± .5° .X ± .1 SURFACES = 125°
DRAWN BY: PERRITT	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
CHECKED: DUERFELDT	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR: ANDERSON	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR: LINDSAY	USED ON MODEL
APPROVED: GILBERT	SCHWEIZER 269
SCALE 1:1	DATE 10/24/2006
SHEET 6 OF 7	

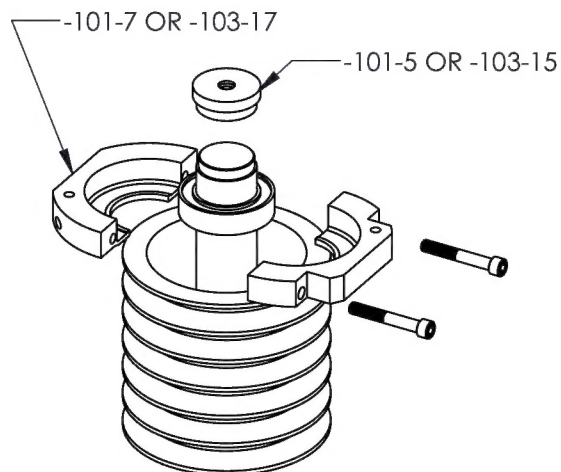
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STEP 1:

FROM KIT -101 OR -103
SLIDE THE PULLER BODY
HALVES UNDER THE
BEARING AND FASTEN
TOGETHER WITH CAP
SCREWS AS SHOWN.
PLACE -101-5 OR -103-
15 SHAFT PLUG ON THE
END OF SHAFT.

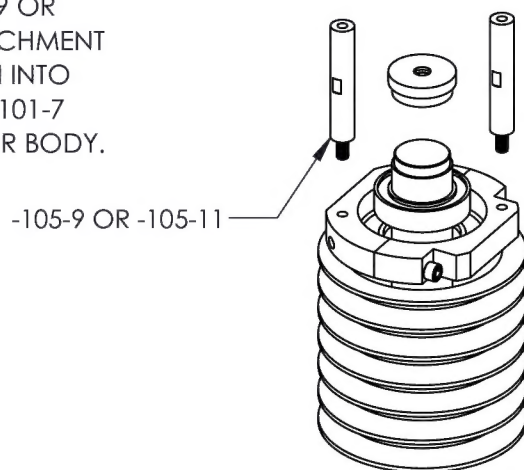
NOTE:

ENSURE THE -101-5 OR -
103-15 SHAFT PLUG HAS
A BALL BEARING
INSTALLED IN IT. IF IT
DOES NOT, REPLACE IT
BEFORE USING TOOL.



STEP 2

FROM THE -105 KIT,
SCREW THE -105-9 OR
THE -105-11 ATTACHMENT
RODS AS SHOWN INTO
THE ASSEMBLED -101-7
OR -103-17 PULLER BODY.



STEP 3

ATTACH -105-1 BAR SECURELY
TO RODS USING CAP SCREWS
AS SHOWN.

LUBRICATE THREADS OF -105-3
PULLER BOLT AND SCREW
THROUGH -105-1 BAR AND
INTO -101-5 OR -103-15 SHAFT
PLUG.

USING A 1-1/8 WRENCH
TIGHTEN -105-3 BOLT UNTIL
BEARING IS REMOVED FROM
SHAFT.

NOTE:

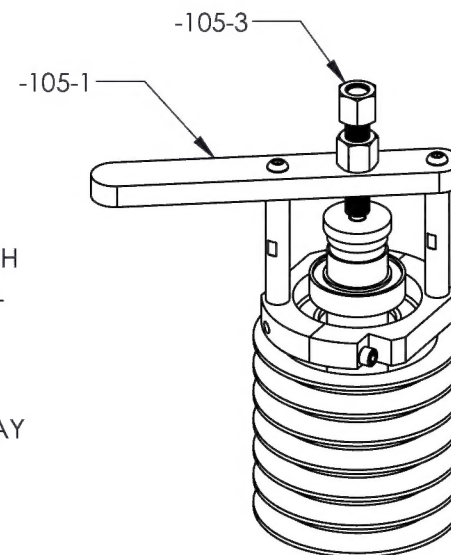
DO NOT USE IMPACT WRENCH
OR ANY OTHER POWER TOOL
TO PULL BEARING.

NOTE:

LONG END OF -105-1 BAR MAY
BE HELD IN A VICE AS
NECESSARY.

NOTICE:

-101, -103 AND -105 KITS SOLD SEPARATELY



DART
AEROSPACE

190 S. Danebo Ave., Eugene, OR. 97402
1-800-556-4166
e-mail: sales@dartaero.com
dartaerospace.com

TITLE PULLEY BEARING SCREW SET			
DWG. NO. 269T9336-103	REV 6	CUSTOMER 1 OF 1	
SCALE 1:6	DATE 12/23/2010	SHEET 7 OF 7	